

CLAIMS

What is claimed is:

1. A current detection unit of an inverter comprising an inverter which outputs a pseudo, three-phase AC power, converted from DC power to a load, and means for measuring a DC current flowing in said inverter, said current detection unit detecting a three-phase current output from said inverter to said load by measuring said DC current flowing in said inverter, said current detection unit comprising:

a measurement time setting means for setting a measurement time of said DC current at at least one of an uppermost point and a lowest point of a reference chopping wave with a predetermined frequency; and

a current phase detection means for detecting at least two phase currents from respective DC currents measured at a plurality of measurement times sequential to each other.

2. The current detection unit of claim 1, further comprising an out put phase setting means for setting a three-phase output, wherein one phase is fixedly set at a low level or a high level, another phase is set at an active-high setting and a remaining phase is set at an active-low setting.

3. The current detection unit of claim 1, further comprising an output phase setting means for setting a three-phase output, wherein one phase is set at either an active-high setting or an active-low setting, and the other two phases are set at the other of said active-high setting and said active-low setting.

4. The current detection unit of claim 1, wherein said current phase detection means measures a DC current at two measurement times sequential to each other, detects one phase current from a current measured at one of said two measurement times, and detects another phase current from a current measured at the other measurement time.

5. The current detection unit of claim 1, wherein said current phase detection means measures a DC current at three or more measurement times sequential to each other, and estimates current phases, which are not detected at predetermined measurement times, based on currents measured at respective said measurement times.

6. The current detection unit of claim 2, wherein said current phase detection means detects a current phase, which is not measured at a predetermined measurement time, by inverting at least one phase output at said predetermined measurement time.
7. The current detection unit of claim 3, wherein said current phase detection means detects a current phase, which is not measured at a predetermined measurement time, by inverting at least one phase output at said predetermined measurement time.
8. The current detection unit of claim 2, wherein, by inverting at least one phase output at three measurement times sequential to each other, said current phase detection means detects a current phase, which is not measured at a second of said measurement time.
9. The current detection unit of claim 3, wherein, by inverting at least one phase output at three measurement times sequential to each other, said current phase detection means detects a current phase, which is not measured at a second of said measurement times.